In the Specification:

Please amend the specification as follows:

On page 1, please amend the title of the application as follows:

A1

METHOD AND APPARATUS FOR EXECUTING A 32-BIT APPLICATION BY CONFINING ~~AN~~ THE APPLICATION TO A 32-BIT ADDRESS SPACE SUBSET IN A 64-BIT PROCESSOR

On page 2, please amend the third paragraph to read as follows:

A2

According to embodiments of the present invention, a processor can include control logic to treat a memory reference of an application as a 32-bit memory reference. In one embodiment, the processor can execute an application, and the application can specify that it uses 32-bit addresses by setting an address space control flag. The processor can determine whether the address space control flag has been set. When the control flag is set, the processor can truncate a generated address space control flag. The processor can determine whether the address space control flag has been set. When the control flag is set, the processor can truncate a generated address into a 32-bit address and either zero-extend or sign-extend to 64-bits the truncated 32-bit address. In one embodiment, a processor can determine whether to zero-extend or sign-extend a truncated 32-bit address based at least in part on whether an address format control flag specifies unsigned addresses (that can be zero-extended) or signed addresses (that can be sign-extended). In another embodiment, a processor can determine whether an address fault control flag can be set. When the address fault control flag is set, in one embodiment, the processor can generate a fault when a generated address is not within a proper 32-bit address space subset. When the address fault control flag is clear, the processor can ~~truncated~~ truncate a generated address and zero/sign-extend the truncated address.

On page 3, please amend the second paragraph to read as follows:

A3

Confining the application to a 32-bit address sublet can compensate for incorrect content that can be introduced into the high order 32 bits of a 64-bit data item when a 32-bit data item is moved and/or part of an operation within a 64-bit general purpose register. One category of such incorrect content relates to wraparound errors. 32-bit operations that wraparound in a 32-bit environment can, when executed in a 64-bit environment, cause the high-order 32 bits of a 64-bit data item to include a value other than 0 ("0" encompasses a value of 0) or 0xFFFF:FFFFH ~~("FFFF:FFFEH")~~ ("FFFF:FFFFH" encompasses a hexadecimal value of FFFF:FFFF). A wraparound error can be used